**TITLE 326 AIR POLLUTION CONTROL BOARD**

**#05-116 (APCB)**

**SUMMARY/RESPONSE TO COMMENTS RECEIVED AT THE FIRST PUBLIC HEARING**

On May 2, 2007, the Air Pollution Control Board (board) conducted the first public hearing/board meeting concerning the development of new rule 326 IAC 24-4. Comments were made by the following parties:

Carly Watson, AirAware and Valley Watch (AA)
Americans for Balanced Energy Choices members: written comments submitted by Jim Wheeler (ABEC members)
David Long, American Electric Power (AEP)
Claude W. Caddell (CWC)
Dina Ferreira (written comment) (DF)
Robert Asplund, Dominion (DM)
Dan Weiss, Duke Energy (DUKE)
Hoosier Environmental Council members: written comments submitted by Ryan Camp (HEC members)
Dr. Paul Winchester, M.D., Indiana Academy of Pediatrics (IAP)
Jenny Kalis, Indiana Biomedical Kids (IBK)
Nat Nolan, Indiana Coal Council (written comment submitted by Stan Pinegar) (ICC)
Stan Pinegar, Indiana Energy Association (IEA)
Dr. Indra Frank, Hoosier Environmental Council (IF)
Janet McCabe, Improving Kids' Environment (IKE)
Patrick Bennett, Indiana Manufacturers Association (IMA)
Jerry King, Indiana Public Health Association (IPHA)
Dwayne Burke, Indianapolis Power & Light (IPL)
Chuck Brinkman, Indiana Wildlife Federation (IWF)
Jeff Barnd (JB)
John Gibson (JG)
John Ross, NiSource (JR)
Julia Tipton Hogan (read by Dr. Indra Frank) (JTH)
Jim Wheeler (JW)
Mark Strimbu, NiSource (MS)
Ryan Camp, Hoosier Environmental Council (RC)
Richard Van Frank, Improving Kids' Environment (RVF)
Vince Griffin, State Chamber (SC)
Steve Fox, Marion County Green Party member (read by Dr. Miner) (SF)
Constance Clay, Save the Dunes Council (STD)
Tom Hougham (written comment) (TH)
Tim Maloney, Hoosier Environmental Council (TM)

Following is a summary of the comments received and IDEM's responses thereto:

**Comments in support of CAMR rule proposed by IDEM**

*Comment:* IUG fully supports the proposed rule before the board and encourages the board to adopt the rule as proposed by the agency. It's the right decision for the health of Indiana citizens and the right decision for customers who will pay for the cost of controls. (IEA)

*Comment:* The rule as proposed by IDEM strikes an appropriate balance between improving and protecting the state's environment and preserving Indiana's economy. (DUKE)

*Comment:* While there are some differences of opinion regarding certain details of the rule such as the fuel

neutrality issue and the clean coal incentive program, IDEM's CAMR proposal offers a balanced, achievable, and cost-effective approach to mercury emissions reduction. (AEP)

*Comment:* The commenter endorses the Indiana adoption of the federal CAMR. CAMR will result in substantial reductions in power plant mercury emissions and deposition in Indiana. (DM)

*Comment:* The commenter supports the Indiana adoption of the federal CAMR. The United States is the first nation in the world to adopt mercury regulations. (IPL) (SC)

*Comment:* The primary health concern is eating mercury with fish. The reality is that more than 90% of all of the fish consumed in the United States comes from the ocean, not the lakes and streams that may be of concern. Eating fish promotes good health. To tell all segments of our population that eating fish is dangerous is not only wrong, it is irresponsible. Indiana is doing something to reduce mercury emissions. Co-benefits from CAIR will reduce mercury emissions. Different estimates have been presented, but roughly 40 % of the mercury is removed with controls for $NO_x$ and $SO_2$. (SC)

*Comment:* The commenter supports Indiana adoption of the federal rule. Indiana coal mines produce approximately 36 millions tons of coal annually and supply roughly one-half of the total coal consumed by Indiana electric utilities and other industrial facilities. The final federal rule was well thought out and based upon science and current technologies. Both the National Mining Association and the Indiana Coal Council (ICC) support the federal rule. Any requirements beyond those established by U.S. EPA could drastically harm Indiana's coal industry and Indiana rate payers. Affordable electricity rates are important to all Hoosiers and the continued economic expansion of Indiana. The commenter points to U.S. EPA's findings that additional health benefits of any state actions to exceed the federal requirements would be negligible due to emissions from other countries. The commenter submitted two documents regarding health impacts that conclude that a 70% reduction in mercury emissions from Indiana's electric utilities is protective of all Hoosiers. The first document is from Eugene Trisko on behalf of the United Mine Workers Association and the second is a report by Gail Charnley, PhD. Both the Indiana General Assembly and the Administration of Governor Daniels are encouraging new investment in clean coal technologies that will continue to reduce emissions from the generation of electricity and production of substitute natural gas. (ICC)

*Comment:* IUG opposes both alternatives to the rule IDEM is proposing: the Hoosier Environmental Council (HEC) petition and the Improving Kids' Environment (IKE) proposal. The citizens of Indiana would likely incur significant cost with little, if any, measurable health benefit and imposing such levels of reductions would create significant technical questions, including the achievability of an additional level of reductions and the ability to monitor emissions at the levels proposed. (IEA)

*Comment:* More stringent emissions reductions are not necessary or appropriate. (AEP)

*Comment:* The cost of complying with CAMR is not cheap. It is estimated to cost between $64 million and $68 million annually by 2018. Based on the same analysis, compliance with the HEC petition could cost between $207 million and $373 million annually beginning in 2010. IUG estimates based on the same model indicate that the IKE proposal would cost an additional $70 million annually; twice as expensive as CAMR. CAMR costs are already in addition to Clean Air Interstate Rule (CAIR) costs for power plants of $1.5 billion, or total annualized cost of $291 million. Indiana's ranking as a low-cost energy state is very important, not only for economic development opportunities, but also for low-income customers. (IEA)

*Comment:* IDEM and IUG cost analyses were done some time ago and costs are increasing for labor and materials. Baghouses with activated carbon injection (ACI) were estimated to cost $40 to $70 per kilowatt hour to install. Recently, Electric Power Research Institute (EPRI) issued a report with updated cost information indicating that the current capital cost of a baghouse is estimated to be $150 per kilowatt hour. (AEP)

*Comment:* A cap and trade program is important in keeping costs down. (IEA) (IPL)

*Comment:* Mercury is a global pollutant that is neither created nor destroyed by human activities. The amount of mercury deposition can be derived by monitoring and modeling. Electric Power Research Institute/Atomospheric & Environmental Research, Inc (EPRI/AER) modeling shows that there is very little, if any, benefit to requiring utility mercury emission reductions beyond those of the IDEM proposed CAMR. (MS)

*Comment:* One of the predominant findings touted from the Steubenville study is that "local" sources of mercury

causes high levels of deposition in the Steubenville, Ohio area. It is important to note that "local" deposition in this study is characterized as emissions from up to 600 miles away. Other studies, such as the Florida Everglades and Massachusetts studies, have shown some reductions in fish flesh mercury levels over time after reductions in mercury emissions, but only at some locations and, even at such locations, not at the level of emission reduction in the area. These two studies are not directly applicable to Indiana. Methylation rates are highly variable and waterbody-specific. The Everglades may not be comparable to Indiana waters. Also, the sources from which emission reductions occurred in these two studies were not power plants and the type of the source is very important to results. Data from another study performed at Little Rock Lake, Wisconsin shows that there was a steady decline in mercury both in precipitation and in the lake water. The authors of this study theorize that it "may have been the combined effect of regional decreases in smelting activity, the commercial and industrial use of Hg, and/or changes in the fuel mix of coal burning power plants." The point is that methylation is a very complex process that depends on waterbody-specific issues. (JR)

*Comment:* In any discussion around additional mercury reductions the impacts of oxidized mercury must be considered. More stringent emission reductions will force the installation of unproven and expensive mercury-specific technologies that would primarily reduce elemental mercury. Elemental mercury has less of an impact on Indiana lakes and streams than oxidized mercury. Controls for sulfur dioxide ($SO_2$) and nitrogen oxides ($NO_x$) that will be installed over the next two years in response to CAIR will reduce mercury emissions due to co-benefits. But these controls will not reduce elemental mercury. Meeting stringent CAMR Phase II mercury limits or even more stringent alternative proposals require installation of mercury-specific technology that targets elemental mercury. Reductions in elemental mercury will result in virtually no change in mercury in Indiana lakes and streams. (DUKE)

*Comment:* While there is continuing research on refining mercury-specific controls, such as ACI, they are not and will not be commercially available for many years, since they cannot consistently, continually, and reliably reduce mercury emissions over the wide range of power plants, fuel characteristics, and operating conditions found in Indiana. (DUKE)

*Comment:* To allow time for the development of mercury-specific technologies U.S. EPA developed a phased program approach. (AEP)

*Comment:* A concern with installing mercury-specific control technologies now is that if power plants have to install additional $SO_2$ and $NO_x$ controls in the future due to upcoming more stringent air quality standards over the horizon then the mercury-specific controls may no longer be necessary due to the mercury reduction co-benefits of the $SO_2$ and $NO_x$ controls. Ratepayers would then be paying for a unnecessary piece of equipment. (DUKE)

*Comment:* Results from testing confirm that the AEP system will not be able to meet CAMR requirements through the installation of CAIR control alone. Additional mercury reductions beyond those anticipated from the CAIR control plan will be needed by 2010. (AEP)

*Comment:* Continuous emissions monitoring (CEMS) for mercury are difficult to keep running. The primary difficulty of making mercury emissions measurements on stacks is getting a sample of the stack gas that contains the mercury to be measured to the analyzer in a quantitative manner. Recognizing the infancy of the program, U.S. EPA is heavily involved in the testing of the monitoring systems and working through the problems. CAMR does include a viable alternative to CEMS by allowing the use of a much more reliable sorbent trap mercury measuring program. Given that there are still problems with operating mercury CEMS and that the variations in accuracy of CEMS monitoring exceeds the HEC petition standard, the CAMR monitoring program is not appropriate for a command and control rule such as the HEC petition. (DM)

*Comment:* Not all units are seeing 90% reduction of mercury emissions due to co-benefits of selective catalytic reduction (SCR) and scrubber controls. At the Petersburg Station, which has a combination of SCR and a scrubber, tests have shown a 40% reduction. The issue is the scrubber is not removing as much mercury as expected. (IPL)

*Comment:* Pollution control projects also need approval from the Indiana Utility Regulatory Commission if costs are added onto the rate base for customers. This is a very time consuming process. This time frame is important when considering how long it will take to come into compliance with an emissions reduction rule. (IPL)

*Comment:* Other states that have adopted more stringent rules have included variances or extensions. For example, the Illinois rule requires a 90% reduction by 2009. But the rule includes provisions for a variance until

2014 if a unit has installed ACI or a combination of scrubber and SCR and cannot meet the limits. (IPL)

*Comment:* The commenter supports the adoption of the federal CAMR. Indiana is a manufacturing state. One of the pillars in this very challenged industry is the fact that Indiana still has relatively low cost of operations and energy is an important part of that. Indianapolis has a diversified economy, but the rest of the state is in economic trouble. The main reasons to support the federal rule is that there is still uncertainty about how much it would cost to go with the proposed alternatives and what the real benefit would be. CAMR goes a long way in the right direction. (JW)

*Comment:* The commenter supports the adoption of the federal CAMR. The cost of compliance with this rule will become the cost of energy to industry. Some folks may say that this shouldn't be a cost argument. Over the last couple of years the association became aware of two or three members that have started to import their parts from overseas because it is cheaper. From a regulatory point of view the concern is that they are buying parts from overseas where the regulations could be nonexistent, a huge advantage over a manufacturing company in the U.S. The adoption of this rule will have an incremental effect on the cost of manufacturing and the cost of products. A more stringent rule would make that incremental difference even greater. In order for a regulating body to go beyond the federal standard, the evidence should be compelling. So far the commenter has only heard that there's speculative influence that maybe Indiana should go beyond the federal rule. The board can also come back and regulate more in the future if necessary. (IMA)

*Comment:* The adoption of the Indiana CAMR is supported. It will reduce mercury emissions from power plants in Indiana while balancing the protection of public health with affordable access to energy. CAMR will lower mercury emissions from existing coal power plants by 70%. The cap and trade program is cost effective and will continue environmental progress while ensuring affordable, reliable electricity. (ABEC member comments submitted by Jim Wheeler: Diane Aardema, Charles Abel, Mickie Alexander, Wendy Alexander, Ronald Allen, Karen Anttila, Herbert Arihood, Janice Arreola, Jack Atwell, Henrietta Ball, Deborah Bargo, Nelly Barrett, Janice Batteast, John Bauer, Alice Beard, Karen Bedwell, Manny Bejar, Timothy Bennefiel, Laura Bennett, Bud Bernitt, Joyce Bishop, Karen Bittner, Alvin Black, Darrell Blackburn, Sylvia Blackburn, Glenn Blackwell, Evan Blankenbaker, Florence Booker, Kathy Bowman, Maggie Brents, Debra Brinkley, Angie Brown, Tony Brummnel, David Burdine, Richard Burger, Alvin Burke, Charna Burnett, Marilyn Burton, Terry Busby, Melvin Byers, Billie Caldwell, Enrique Campos, Doris Carbins, Robert Carmichael, Susan Casey, Julian Ceniceros, Donita Chambless, Dana Clapp, Billy Claridge, Bill Clark, Charles Clark, Karen Clark, Ebbie Clark Sr., David Clemons, Jeff Clifford, Joe Cmiel, Martha Coffman, Jerry Colglazier, Marybeth Collins, Joyce Colquitt, Dan Conway, Douglas Cook, Timothy Corbin, Maureen Coyne, Kathy Crabtree, Thomas Croninger, John Crum, Bobby Curry, Fred Daniels, Jannel Davis, Marie Davis, Marilyn Davis, Marsha Davis, Fred Day, Cindy Dehaan, Margaret Delp, Stephen Deniston, Arlene Denny, Harold Dent, Blanche Dereau, Sally Devoe, Steven Dillinger, John Ditslear, Elizabeth Donnell, Steven Dorsett, Tom Drew, Ronald Dudley, Ted Durham, John Edgeworth, Diane Edwards, Keith Elder, Bill Ellis, Sandra Emenhiser, Marina Ewing, Ruthann Falatic, Dean Fallis, Kelly Favory, Adeline Fazekas, Shelley Felker, Stephanie Ferriell, Rayfield Fisher, Dennis Fisk, Michael Fite, Dan Fleener, Floyd Fletcher, Douglas Flournoy, John Foster, Carol Fox, Kent Frantz, Alice Fultz, Kenneth Furto, Susan Gamez, Mike Garrett, Jeanne Garringer, Brenda Garrison, Marion Gaston, James Gatchell, Kay Gedert, Cheryl Gilbert, Kenny Given, Kenneth Glover, Michelle Golden, George Goodale, John Goralczyk, Vivian Gordon, Patricia Grabner, Linda Graham, Hetty Gray, Marilyn Gray, Sarah Green, Lynn Greenwalt, Vince Griffin, Timothy Griffith, J.D. Guinn, Raymond Haack, Mike Hamblin, Mary Hammond, Ray Hanson, Jean Ann Harcourt, Francis Hardman, Betty Harmless, Alma Harris, Margaret Hart, James Hasse, Robert Hastings, Jeff Havens, Priscilla Hawks, Mark Heimsoth, Rhonda Hennin, Linda Herman, Robert Herrick, Jim Hess, Thomas Hetrick, Charles Hill, David Hilligoss, Larry Hinkle, James Hoffman, Booker Hollis, Bernard Holm, Detherila Hopkins, Annabelle Hoskins, Glenn Howard, Leslie Howard, H. Hudson, Diane Huening, Craig Hunnicut, Joe Hyde, Robert Ice, John Jackson, Doug Jacques, Dan Jayne, Cecil Johns, Alelia Johnson, Helen Johnson, Arnold Jones, Bobby Jones, Gerald Jones, Mike Jones, William Jones, Kent Justus, Loieta Kalil, James Karas, Beth Karnes, Ken Kavensky, Russell Kemmerer, Patty Kempf, Iona King, John Kinney, Frances Kleber, Sarah Knisley, Iramgrd Kohanyi, Andrew Kruer, Jeffery Kruse, Kris Kyler, Patricia Lacy, John Lahr, Bob Lambert, Janice Languell, Nancy Lawhorn, John Leahy, Dave Leathers, Anna Leigh, Mike Leneave, Marice Lesley, Daniella Lett, Marilyn Levering,

Elia Levin, Janet Lewellyn, Jim Long, Garry Lytle, Larry Mahns, Daniel Maikranz, Suzie Martin, Steve Martinez, Rebecca Maskovich, Michael Mccain, William McChesney, Alice McColgin, Anna McCord, Terry McDaniel, Tim Mciver, Judith McKinley, Rick McKinney, Kim Meador, John Meeks, Sue Meisberger, Ty Mercer, Jack Metcalf, Velvet Metzger, Joe Metzinger, Hugh Meyer, Vincent Micchia, Nicolas Mijares, Edward Milam, Samuel Miles, George Miller, John Miller, James Mitchell, Nicole Mitchell, Robert Mitchell, Max Mock, Grant Monihan, Mary Moore, Lennis Moran, Charles Morelock, Kathy Morford, Jeffrey Morton, Diane Moulesong, James Mull, Craig Mullins, William Murphy, Terry Myers, Vicky Myers, John Mylet, Timothy Napiwocki, Maxine Nesbitt, Gio Nguin, Linda Nohl, Nat Noland, Biddie Null, Joe Offerle, Michelle Parker, Janie Parrott, Douh Patterson, Shirley Payne, Diane Peachey, Rosa Pena, Sharon Pence, Gary Perkins, Vickey Perkins, Karen Petalas, Vernon Petersen, Dave Phillips, Ed Pierce, Maurice Pierce, Patricia Pinter, Steve Plumer, Dan Porter, Donald Portwood, Louise Pratt, Linzie Price, Mike Price, Jacquine Przeniczny, Maria Rago, Mary Rancourt, Melandy Ransom, Rory Raub, Joe Remington, Ellen Rendon, Arthur Richardson, Jay Rigdon, David Rivera, Ruth Rizek, Brenda Robinson, Barbara Roe, Jose Rosado, Mary Ross, Vicki Rowe, Carol Rudzinski, Thomas Salentine, Margaret Saliga, Teresa Samuel, Craig Savage, Jack Saylor, James Schneider, Ralph Schneider, Kenneth Seis, Ronald Sevier, Jeanea Sexton, James Shaw, Charles Shepherd, Marcia Shepherd, Sharon Shotts, Jacqueline Shrader, Betty Simon, Nancy Slater, John Smith, Nathan Smith, R.M. Smith, Vanessa Smith, Ray Snyder, Bert Sorenson, Teena Spencer, David Stalbaum, Edward Stephens, Melanie Stevens, Virginia Stewart, Ara StJohn, Ruth Straub, Barbara Strauss, Ron Suttmoeloloer, Christopher Swan, Milton Swanson, Christopher Swatts, Nick Sztztesniak, Pamela Takacs, Jane Testa, Rene Thomas, Mary Tiemann, Donald Tillema, Reneta Toliver, Charles Turner, James Turner, David Turoci, Jim Tyler, Don Underdahl, Donna Valle, Flavio Vega, Nancy Velez, Jimmy Ventura, Joan Voelkel, Teresa Wade, Charles Ward, Mae Ward, Alice Washington, Antonio Washington, Elizabeth Waters, Marcia Weaver, Richard Weaver, Gary Wehr, Tim Wehr, Sandra Wells, Steve Wieger, Jack Wiley, Max Wiley, Amos Williams, John Williams, Mae Williams, Nancy Williamson, Daniel Willis, Audre Wilson, Paul Wilson, Don Wine, Norman Winkler, Carolyn Winrich, Elaine Winter, Cathy Wiseman, Edward Witek, Curtis Woodfaulk, Wile Wright, Mynniel Wyatt, Paul Wylie, Randy Yeiter, Sherrill Yergler, Harriet Yoder, Brad Young, William Zander, Ed Zehr, Rex Zenor, Jamine Zimmerman)

*Response:* IDEM appreciates the support and has proposed a rule based on the federal rule.

**Comments in support of going beyond federal CAMR**

*Comment:* The Hoosier Environmental Council's (HEC) petition for rulemaking calls for a 90% reduction from inlet to outlet in mercury emissions from power plants. Since many Indiana plants already have some controls in place, the HEC proposal would result in a 78% reduction from 1999 emissions. The HEC proposal would reduce power plant emissions to 1,095 pounds per year in 2010. By contrast, under CAMR it could take until 2025 to reach the CAMR Phase II cap of 1,656 lbs per year. Other coal producing states, Illinois and Pennsylvania, along with 19 other states are working on mercury regulations stronger than CAMR with greater reductions and shorter deadlines. CAMR is too little and takes too long. Indiana can and should do what's achievable, what's affordable, and what gets toxic mercury out of the environment: adopt a mercury rule requiring a 90% reduction. (TM)

*Comment:* Mercury is a neurotoxin. There is no normal role for mercury in the human body and allowing mercury to disperse widely in the environment cannot possibly do any good and has the potential to do harm. Based on reports from the U.S. EPA and the U.S. Department of Energy (U.S. DOE), and recent experience on the Mercury Air Board Study Group, reducing mercury emissions is feasible now and does not require a wait of nearly 20 years. In Indiana, 80% of the generating capacity burns bituminous coal. For those plants the combination of a scrubber with SCR achieves mercury reductions of 70-90%. So, for the majority of plants, 70% reduction or greater will be achieved with Clean Air Interstate Rule (CAIR) controls that are required by 2015. For the other 20% of Indiana's generating capacity, various forms of sorbent injection are available that achieve significant mercury reductions, in some cases exceeding 90% control of mercury. Full scale trials of sorbent injection at coal-fired power plants began in 2001, and there are now published results from 19 power plants burning bituminous or subbituminous coal. While U.S. DOE states that work is still needed to perfect ACI for some plant configurations, as a practical matter these systems are commercially available. The Institute of Clean Air Companies published a list of 33 contracts for purchase of sorbent technology for power plants that had been signed as of January 2007. Controlling mercury

emissions is inexpensive; even with the HEC proposal and industry estimates the difference in cost compared to CAMR comes to $0.27 cents per kilowatt hour at most. Even with this increase Indiana will still have prices well below the national average and most of neighboring states. Given that mercury is an undisputed toxin and that CAMR is going to take nearly 20 years to achieve a 66% reduction, there is a compelling reason to control mercury beyond CAMR. (IF)

*Comment:* IPHA has adopted a resolution calling for being in favor of a more aggressive reduction of mercury emissions. The biggest concern is Indiana's rank in amount of mercury emissions, the relationship of mercury to the food chain, and the impact of mercury on the nervous system of children. There are many different ideas of what is the right thing to do on this matter. The right thing to do is to err on the side of caution to protect the earth and the earth's ecosystems. It is also right to protect life and health, especially children's health. Finally, it is also right for Indiana to take responsibility for mercury emissions from Indiana's energy production. (IPHA)

*Comment:* This issue presents a compelling case for the air board to adopt a rule that goes beyond the federal rule. The federal rule started out in the late 1990's looking like it would require a 90% inlet to outlet reduction in mercury emissions by 2008, which is approximately the equivalent of a 78% reduction compared to the 66% reduction required by the final federal rule. As is the case with most rules this one is being challenged in courts, but the litigants are not the usual groups, but the list includes several medical organizations. There are a significant number of states adopting something more than the federal rule. Indiana has gone beyond the federal requirements in the past with respect to mercury by adopting a mercury limit for the Indianapolis municipal waste incinerator in advance of a federal limit, adopting a progressive law that banned mercury in novelty products and prohibited it on school property, and recently adopting a mercury switch program for automobiles. All of this is in recognition that mercury is a special pollutant. The responsibility of the air board under IC 13-17-1-1 is to safeguard the air resource through the prevention, abatement, and control of air pollution by all practical and economically feasible methods. A compelling case has been made for this board to think hard about a rule that will go beyond the federal minimum. (IKE)

*Comment:* The commenter's research area of interest is focused on why Indiana children appear to have a high rate of birth defects, premature births, and learning disabilities. Research has looked at how environment relates to health in Indiana. Is Indiana's pollution good for Indiana children or is there a serious health problem? Indiana is in top ten for quantity of pesticides, nitrates, or mercury. Indiana has 512 waterbodies with fish advisories for no consumption by pregnant women or young children. Data analysis shows that pollution peaks in June in Indiana, whether it's measured by trihalomethanes, atrazine in pesticides, nitrates, or mercury in surface water. Mercury is also not just a toxin, but actually acts as an endrocrine disruptor. Endrocrine disruption is an interaction of mercury with thyroid hormones and sex hormones. Hormonal disruption may not only affect the child in the short term, but may also produce long term traits that are negative. A key question is determining what is safe in the case of mercury. The stillbirth rate also peaks in June. Indiana does not collect birth defect data, but national data shows birth defects peak for babies conceived in June. Comparing the month of conception for children with special education requirements correlates with a peak month of conception for children with learning disabilities with highest months of contamination. There are concerns that Indiana's environment is not healthy for children and the commenter urges board to adopt stringent rules to protect Indiana children. (IAP)

*Comment:* The commenter trusts the medical community when they say the difference between 70% and 90% is more than a negligible health risk to Indiana citizens. If it is true that there is the ability to control to 90%, how could Indiana not take the high road? How could people not be willing to pay a higher rate for electricity to protect public health? (JG)

*Comment:* Since it is known that mercury can harm pregnant women and their unborn babies, the Indiana Perinatal Network supports the maximum reduction of mercury in Indiana as soon as possible. (JTH)

*Comment:* The decision that the board will make will leave a lasting legacy for our children and grandchildren, and it is important to make the right decision. In talking with friends, family, and co-workers nobody has had an issue with paying higher rates to solve the mercury issue. So the minor increase in rates should not be a major factor in the decision. (JB)

*Comment:* The commenter supports the HEC petition. There are 17 coal-fired power plants in a 62-mile radius

of the commenter's home town in the Newburgh area of southern Indiana. There is a lot of particulate matter and mercury in this area. A 70% reduction in mercury will help, but it will not go far enough to address the problem. A cap and trade program will not help either, since industries can simply buy their way out of actually having to do anything. Cost should not be a factor. Just because China is not reducing emissions should not be a reason to do something in Indiana. If everyone is concerned about economic development then something should be done about mercury hot spots because nobody wants to live in an environmental mess. Indiana should err on the side of caution. (AA)

*Comment:* HEC has knocked on over 50,000 doors and talked to just over 25,000 people. Th consensus is that citizens are happy to pay a little more on the electricity bill to see that the 90% mercury reduction occurs. It is a serious problem that so many lakes, rives, and streams in Indiana are unsafe, especially for women of childbearing age, to eat any of the fish caught in them. The technology is available and it's time to use it. It is possible to have both a healthy environment and a strong economy. A healthy environment is needed for a strong workforce. (RC)

*Comment:* Mercury pollution is a serious problem in Indiana. The board should adopt a rule requiring a 90% reduction in mercury emissions from coal plants by 2010. (HEC member comments submitted by Ryan Camp: Bill Hodgson, Josefa Beyer, Kyle Kent, Dave Eads, Austin Mitchell, Ralph Tambasco, Susan Johnson, Mario Melendez, Kate Allen, Abby Kempf, Phillip Schwein, Kristin Simku, Dakota Manuel, Benjamin Leslie, Andrew Barlear, Thomas Bryan, Michael Poteracki, K. St. Clair, Melissa Fenta, Vadnia Taylor, D. Chesnut, G. Bey, Andrew Jones, Mary Jo and Bob Wright, Eric Higbie, Laura Crawford, 21 unidentifiable commenters (either last name or full name was illegible))

*Comment:* The commenter supports the HEC petition. We need to have an attitude that there is hope that our kids would want to live in our state, drink the water, and eat the fish. Leaders are needed to stand up and say no to pollution. States with forward thinking rules on the environment attract young, energetic, intelligent individuals who want to have hope and be able to raise healthy children. Maybe it's not such a bad thing to raise the electric rates. It will make solar and wind energy cheap, more affordable. Citizens could do more to conserve energy. The commenter hopes the board will surprise him by voting for a cleaner Indiana. (CWC)

*Comment:* CAMR does not go far enough in reducing mercury emissions. Save the Dunes Council is an advocate for less environmental impact by utility plants. The environment and the health of citizens needs protecting with regulations that are enforceable and affordable. Currently, nine states have finalized rules with stronger mercury controls than CAMR, including the coal states of Illinois and Pennsylvania. Many states have also adopted requirements that will ensure in-state emission reductions by rejecting the CAMR cap and trade program. Indiana's economic vitality will benefit if the board acts to adopt more stringent measures. (STD)

*Comment:* The commenter represents a group of parents who are using various detoxification methods to recover their children from autism, attention deficit hyperactivity disorder (ADHD), allergies, and asthma. The commenter has two children that have been diagnosed with autism. The illness requires a lot of time and money. Tests have shown that they have high levels of heavy metals, including mercury, in their bodies. Even though with detoxification the children have recovered from most of their autistic symptoms, the children are still sick. More recent testing has shown that the children still have a high toxicity level due to mercury. Studies have shown a correlation between the toxins released into the environment and the rates of autism. Mercury destroys life and no amount is safe. (IBK)

*Comment:* The HEC petition is supported. (SF) (DF)

*Comment:* The commenter is worried about eating fish from a small pond. (TH)

*Response:* IDEM understands the concerns expressed by those attending the preliminary adoption hearing regarding the health effects of mercury and IDEM appreciates the effort that so many citizens made to get involved in the rulemaking process. IDEM evaluated available information and proposed a rule for preliminary adoption that is based on the federal rule. The proposed rule will reduce mercury emissions from coal-fired power plants in Indiana by a substantial amount while ensuring continued electricity reliability and affordability.

**Comments specific to a compromise rule**

*Comment:* IKE is offering a compromise option that should address the two issues that utilities can't compromise on: a cap and trade program and the phase 1 compliance date and cap. A cap and trade program brings

down cost and saves IDEM from running a compliance program, although local deposition is still a concern. The compromise proposal accepts these two concerns. The proposal does move the Phase II compliance date from 2018 to 2015. The evidence is mounting that technology to achieve Phase II reductions will be available by 2015. Other states have adopted earlier deadlines. Given evidence from the U.S. DOE about the effectiveness of various technologies the proposal lowers the Phase II caps to 1,200 pounds. This would result in approximately 9,000 fewer pounds of mercury emitted in three years from 2015 to 2018. The proposal could be modified to include extensions for small sources or have a midterm check to see if the rule needs adjusting. Allowances from the Phase II cap reduction could be put into a energy efficiency and renewable energy set-aside. (IKE)

*Comment:* Mercury has an impact on Indiana rivers and lakes where fish live. It affects their spawning and schooling. Other species, such as otters, osprey, and eagles feed on fish. Studies show that these species are showing significant signs of mercury levels. Studies are also showing that mercury is found in species that don't eat fish. Weekend fish fries are a tradition in many parts of Indiana and fishermen are going to want to eat what they catch; the bigger the better. Indiana should be able to come up with a proposal that is between CAMR and the 90% reduction. It's almost like there's not enough concern for the health of the citizens or for the wildlife. (CB)

*Comment:* In the past when $SO_2$ regulations were being adopted industry did not view $SO_2$ as a problem. Industry contested that scrubbers and continuous emissions monitors did not work and were too expensive, and that due to electricity rate increases industry would leave the state. The commenter doesn't believe any of this actually happened. Now is the time to control mercury emissions. Under current circumstances, it would be appropriate for the board to adopt a compromise position on this significant public health issue. (RVF)

*Comment:* Industry has not come up with it's own alternative proposal because IUG members believe the federal rule is the proper rule to pursue. (IEA)

*Response:* IDEM appreciates the commenter's suggestion for an alternative rule. Discussions with representatives from the utilities and HEC did not yield a consensus. IDEM evaluated available information and proposed a rule that is based on the federal rule.

**New Source Review**

*Comment:* The pollution control project exclusion has been eliminated from the new source review permitting program. Currently, if a physical change in an existing facility, including the installation of a pollution control device, causes a significant net increase in a regulated pollutant, a major new source review permit is required. The time required to prepare information for this type of permit is significant. These permitting requirements may have an impact on time frames required to install additional mercury-specific control. (AEP)

*Response:* IDEM understands the concern.

**Clean coal technology incentive**

*Comment:* The clean coal technology incentive in the proposed rule is appreciated. The allowances from the clean coal unit set-aside will help promote building of the next generation of cleaner burning coal-fired power plants, such as the proposed integrated gasification combined cycle (IGCC) plant at Edwardsport. (DUKE)

*Response:* IDEM appreciates the support. This incentive is in line with the governor's "Hoosier Homegrown Energy Plan" emphasizing the need to develop clean coal and alternative sources of energy.

**Air board**

*Comment:* There appears to be the appearance of a conflict of interest for board member Mr. Jeff Quyle. This matter has been raised with the governor's office. He is employed by Hoosier Energy and his employer has a clear financial interest in this matter. It would be appropriate for Mr. Quyle to recuse himself from voting on the mercury rule even though the governor's office has checked with the State Ethics Commission and has received an oral response that there's no legal bar to his voting today. (IKE)

*Comment:* It is a dangerous precedent to set to have board members recuse themselves when they are voting on a rule that affects an industry that they are associated with. (IEA)

*Comment:* The commenter was previously on the air board for six years and was employed at Lilly Research Laboratories at the time. When any issue came before the board that affected Eli Lilly & Company the commenter recused himself from voting on the issue, because it was a conflict of interest. This precedent should be continued. (RVF)

*Response:* Prior to the board hearing for preliminary adoption the governor's office received an informal opinion from the director of the state ethics commission based on interpretation of the state ethics statute. There is a provision in IC 4-2-6-9 that says that a special state appointee is not allowed to participate in a vote if there is knowledge that there's a financial interest in the outcome of the vote to either the special state appointee or a business organization. Financial interest is a specially defined term, and it includes an interest in a purchase, sale, lease, contract, option or other transaction between an agency and any person, or an interest involving property or services. The specially defined term of financial interest led the state ethics commission to advise that in this particular circumstance, voting on this rule did not constitute a violation of the state ethics commission. For the record, Mr. Quyle abstained from voting for preliminary adoption. The governor's office will pursue this issue for a formal opinion.